Socio-Economic Impact of Passenger Rail Development: A Case Study of the Proposed Abbotsford Passenger Rail Station

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Executive Summary

This report discusses the possible socio-economic, environmental, and regional effects of a passenger rail station being set up in Abbotsford, British Columbia. Being conveniently situated along the Cascadia Corridor of Vancouver and Seattle, Abbotsford has a good chance to develop into a connector hub connecting the suburban and rural population with the international markets. It is evident that, according to the analysis, the project will create more than 2,000 direct and indirect jobs, grow tourism revenues by almost 70 percent, and increase the value of properties around the station by the creation of transit-oriented development. The social benefits would include increasing accessibility among students, seniors, immigrants, and low-income groups, whereas the environmental benefits would include decreasing congestion on Highway 1 and eliminating thousands of tons of CO_2 emissions on an annual basis. In comparison to the established hubs in Vancouver, Calgary, and Edmonton, the strength of Abbotsford lies in its ability to balance affordability, equity, and sustainability. Through strategic planning, Abbotsford will be able to become a strong, competitive, and inclusive regional hub.

Introduction

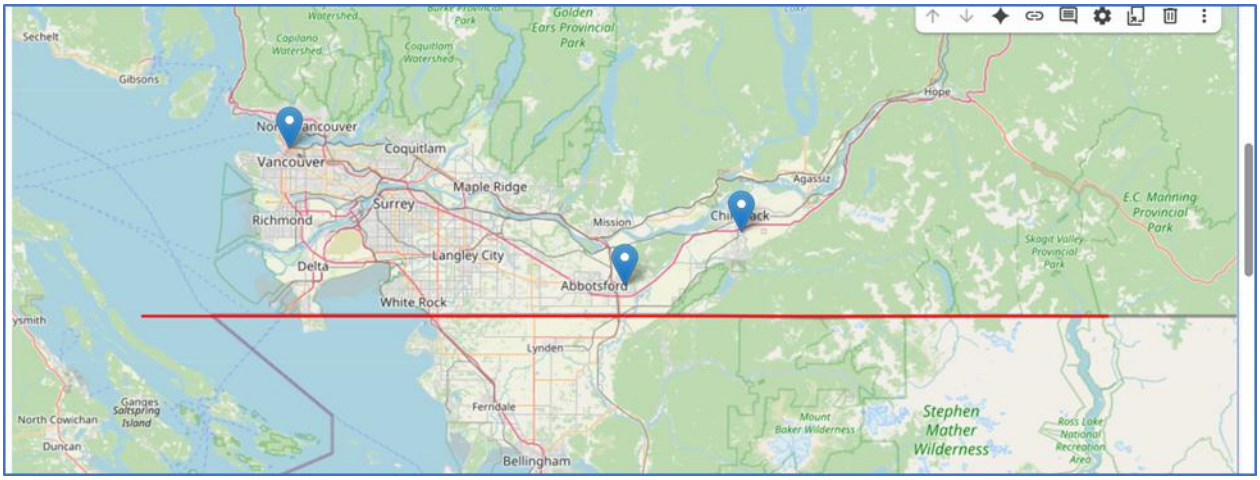
Modern societies rely on transportation as they convey people, goods, and ideas between cities and regions. The lack of an effective transportation system limits economic growth, social welfare, and environmental objectives, making it more difficult to meet (Rodrigue, Comtois, and Slack, 2020). Compared to other types of transportation, passenger rail holds a rather special place as it is quicker than a bus, more environmentally friendly than a car, and cheaper and more ecological than a plane. Passenger rail systems are now vital to global development as they play a crucial role in alleviating congestion, reducing emissions, and enhancing regional integration.

Rail renewal in Canada has included renewed discussion of the Cascadia Corridor, a route between Vancouver and Seattle and Portland. The Cascadia Innovation Corridor (2020) emphasized that high-speed rail has the potential to revolutionize this megaregion, bringing billions of economic benefits and reducing environmental costs. In this setting, Abbotsford, a developing city in the Fraser Valley, becomes one of the best locations to install a passenger rail station.

Abbotsford is advantageously situated: 70 kilometres to the east of Vancouver, near the U.S. border, and containing a rapidly expanding population of over 150,000. Its economy depends on agriculture, education, and logistics, which are limited because of heavy dependence on Highway 1. Traffic jams, increased travel times, and a lack of transport alternatives constrain its potential as a regional hub. Not only would a passenger rail station solve these problems, but it would also position Abbotsford as a connector city in the Cascadia Corridor.

Figure 1

Location of Abbotsford within the Fraser Valley and Cascadia Corridor



Note. The map shows Abbotsford's position between Vancouver and Chilliwack, close to the U.S. border, highlighting its potential role as a connector hub. Adapted from OpenStreetMap (2025).

Because of its geographic location, Abbotsford serves as both a commuter entrance to Vancouver and a possible midpoint in the larger Cascadia Corridor, as illustrated in Figure 1. As covered in the parts that follow, this strategic posture emphasizes how crucial it is to assess its socioeconomic, environmental, and regional effects.

The socioeconomic impacts of the proposed passenger rail station in Abbotsford have been evaluated in this paper. Economic, social, environmental, and regional integration are the four broad axes around which this research is structured. It also discusses important topics, applies Porter's Five Forces model, and compares Abbotsford's potential to that of other Canadian cities (Vancouver, Calgary, and Edmonton). Tables and charts are used to illustrate the findings.

To strengthen this analysis, Geographic Information Systems (GIS) can be applied to evaluate commuter catchment zones, land use, and multimodal integration. GIS-based overlays allow planners to visualize how a station could serve both Abbotsford residents and surrounding municipalities within 30–60 km.

Economic Impact

Job Creation and Employment

This kind of infrastructure project provides both short-term and long-term jobs. A rail station involves the services of engineers, contractors, and construction workers. When in operation, permanent employment is generated in rail operations, safety and maintenance and retail. Notably, such projects have multiplier impacts: every single direct job leads to two to three indirect jobs in the supply chains, logistics, and other supportive services (Litman, 2021). The expected employment opportunities of the proposed station in Abbotsford have been described in Table 1.

This and other mega-infrastructure projects also promote the building of local capacity and training systems. The increasing technical colleges in Abbotsford would be able to match the curriculum with the requirements of the project and ensure that the residents acquire employable skills beyond the life of construction. Furthermore, employment in rail, including safety and operations, is also stable, unionized, and geographically based, which offers long-term stability in the labour market of the locality.

Table 1

Estimated Employment Opportunities from Abbotsford Passenger Rail Station

Category	**Construction Phase Jobs**	**Operation Phase Jobs**
Engineering & Design	150	20
Construction Trades	500	–
Rail Operations	–	120
Maintenance & Safety	–	80
Retail & Hospitality	100	150

Total	**750**	**370**

Adapted from Litman (2021).

According to the table, the short-run would result in the employment of almost 750 positions related to construction, with 370 of them being maintained once the work is complete. This would be a major economic boost to Abbotsford with a diverse yet small labour market. Considering the multiplier effect, which is two or three indirect jobs per one direct job, the overall effect will reach 2000 jobs in supply chains, hospitality, and logistics. Such a growth rate of employment will diversify the Abbotsford economy, and make it less dependent on the agricultural sector and small-scale service trades and promote the retention of young people in the workforce.

Business Growth and Tourism

Good transport infrastructure is an investment attraction. According to The City of Abbotsford (2021), economic diversification heavily depends on transportation planning. Professional services, education, and health care companies would become interested in locating in the city, realizing that employees and clients will travel without difficulty to the railway station.

The existence of a contemporary passenger rail station would also be an indication to investors that Abbotsford is willing to innovate and be sustainable over the long term. This perception is important since companies tend to expand location based on connectivity, the quality of life of the employees, and accessibility to the major markets. Through its direct access to both Vancouver and Seattle, Abbotsford may prove to be a competitive alternative among firms that aim at lower operational costs but at the same time enjoy metropolitan-like connectivity.

Abbotsford boasts of variety of attractions from the exhilarating international airshow, to the

family fun at Castle Fun Park, museums, heritage sites, breweries and wineries, and other recreational events.

At present, tourist dependon the use of automobiles, which restricts their movement. According to Cascadia Innovation Corridor (2020), high-speed rail between Seattle and Vancouver had the potential to bring in billions of dollars in annual tourism revenues. As a mid-way destination, Abbotsford would be able to tap into this market to increase the number of local hotels, restaurants and attractions (Cascadia Innovation Corridor, 2020; see Appendix C for tourism statistics).

Other than leisure tourism, business-related events would also increase. Conferences, trade fairs and sports competitions could also find a natural meeting point at Abbotsford because it is more accessible. Leisure, cultural, and business tourism would, in combination, not just transform the local economy but also boost the brand of Abbotsford as more than an agricultural center. The long-term role of the interconnection of tourism and local entrepreneurship, including boutique wineries, craft breweries, and arts groups, would strengthen its cultural capital without making economic benefits mobile.

Beyond tourism, Abbotsford's location in the Cascadia megaregion provides a unique opportunity to attract conference centers and business parks. With a modern passenger rail hub, Abbotsford could reposition itself as a cost-effective alternative to Metro Vancouver for firms that value international connectivity. Table 2 below illustrates the potential tourism impact of a passenger rail station.

Table 2

Projected Tourism Impact of Abbotsford Passenger Rail Station

Category	**Current Estimate (Annual)**	**Projected with Rail Access (Annual)**	**% Increase**
Leisure Visitors	200,000	280,000	+40%
Conference/Business Tourists	15,000	25,000	+67%
Average Tourist Spending	CAD 300 per visitor	CAD 375 per visitor	+25%
Total Annual Tourism Revenue	CAD 64 million	CAD 108 million	+69%

Note. Estimates adapted from Cascadia Innovation Corridor (2020) and City of Abbotsford (2021).

This table indicates that Abbotsford would have close to a 70 percent growth in tourism revenues in several years of installing the passenger rail connectivity, which would be mainly driven by accessibility, longer visitor stays and greater business travel.

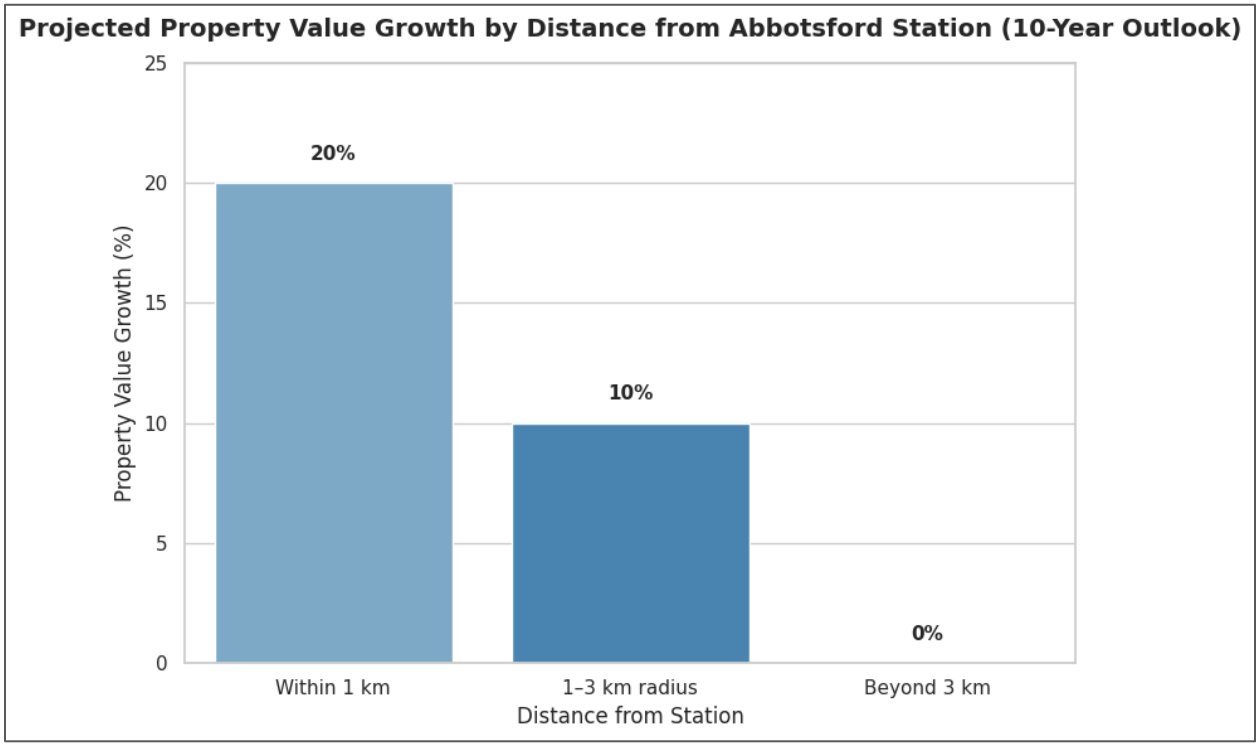
Property Values and Real Estate Development

Transit-Oriented Development (TOD) is often driven and catalyzed by passenger rail stations to promote dense, mixed-use communities around transport nodes. Properties close to stations generally increase more rapidly than those that which is far away (Cervero, 2002; see Appendix B for housing market data). Cervero (2002) reported stable premium rates of 5-20 percent near rail hubs within one kilometre. In Chart 1, the increase in property value is projected in Abbotsford after a change in the station development.

In the case of Abbotsford, the question of setting up a passenger rail station would not only create residential demand around the center but also transform the city's landscape. The developers are bound to focus on mixed-use property–residential, retail, and office property since residential and business will be more desirable to be close to the station. Moreover, young professionals and families frequently are attracted by TOD and prefer to walk and drive shorter distances, as well as having access to facilities, thereby diversifying the city demographic base.

Chart 1

Projected Property Value Growth by Distance from Abbotsford Station



Adapted from Cervero (2002).

This growth would promote urbanization around the station to enhance the supply of housing in Abbotsford and increase the property tax revenue to the municipality. TOD would also produce walkable communities that are vibrant and friendly to local businesses.

Such development will increase the supply of housing in Abbotsford, and it will attract urbanization in the station area that will help address the rising demand of the city for the supply of affordable yet readily accessible housing. There would be an upsurge in property prices, and this would translate to an increase in property tax to the municipality, and this could be used to support community services, schools and infrastructure.

Besides that, TOD will develop vibrant, walkable, pedestrian friendly neighborhoods that are also accommodating to local businesses such as coffee shops, convenience stores and co-working spaces. In doing so, the increase of property value acts as a catalyst to revamp the city and also as an economic measure. Table 3 gives an estimate of the potential increase in Abbotsford property tax revenue associated with TOD to support this assumption.

Table 3

Projected Property Tax Implications from Rail-Induced TOD in Abbotsford

Distance from Station	**Average Current Property Value (CAD)**	**Projected Increase (%)**	**Average Future Property Value (CAD)**	**Additional Annual Tax Revenue (CAD)**
Within 1 km	600,000	+20%	720,000	2,400 per property
1–3 km	500,000	+10%	550,000	1,200 per property
Beyond 3 km	450,000	0%	450,000	No change

Note. Assumes average municipal property tax rate of 0.33% (City of Abbotsford, 2021). Values are illustrative projections.

As indicated in this table, Abbotsford can bring in a good portion of financial benefits to the municipalities, besides the personal gains of property owners. The extra revenue base brought

about by TOD could be utilized in financing other urban development projects that are complementary, so that the rail investments will ultimately prove beneficial to the whole community.

Transit-Oriented Development (TOD) would not only raise housing supply but also increase municipal revenues. TOD-oriented zoning can be paired with incentives for affordable housing, ensuring that gentrification pressures do not displace vulnerable groups.

Regional Trade and Connectivity

Better rail transport could facilitate the activities of freight, despite the initial views of the key players in the industry towards passengers. One of the most prolific agricultural sectors in Canada is located in Abbotsford relying on good ties to the local and international markets. Industrial development can be drawn to transport hubs, and that is the case of CN Logistics Park in Calgary (CN, 2023). The Abbotsford passenger train station could be another stimulus to the development of logistics, with proper planning as well.

In particular, the agricultural production of Abbotsford (dairy, poultry, berries and greenhouse crops) need to reach the markets in Metro Vancouver, the Pacific Northwest and further in a timely manner. Today, Highway 1 congestion reduces the efficiency of distribution, increasing the cost to farmers and exporters. A rail-linked Abbotsford would go a long way in enhancing the dependability of supply chains since it will provide quicker and greener goods transit. Furthermore, the enhanced accessibility may entice agri-food processing industries, distribution hubs, and cold-stores to be placed in the vicinity of the rail station. This would result in lower transportation expenses to these businesses and Abbotsford would have new job opportunities and an improved local economy.

As an example, there are the potential trade-related benefits of Abbotsford rail station as discussed in the table below:

Table 4

Potential Trade and Connectivity Benefits of Abbotsford Passenger Rail Station

Sector/Activity	**Current Limitation**	**Potential Benefit with Rail Station**
Agriculture (dairy, berries)	Delays and higher costs from Highway 1 traffic	Faster, lower-cost distribution to Vancouver & U.S.
Agri-food processing	Limited investment attraction	New plants & facilities near station hubs
Logistics & warehousing	Dependence on trucking routes	Attraction of distribution centers and cold storage
Cross-border trade	Long wait times at road crossings	Integration with Amtrak Cascades & U.S. freight routes

Adapted from CN (2023).

Over the long term, the site of Abbotsford between Vancouver and the U.S. border would enable it to become a secondary logistics center to serve as a complement to the port infrastructure of Metro Vancouver. The city would increase its contribution in the supply chains of Western Canada by capturing the agricultural exports as well as cross-border trade. This reiterates the need to ensure that freight planning is incorporated into the passenger rail project so that the people and goods can experience better connectivity.

Over time, Abbotsford could become a secondary logistics hub complementing the Port of Vancouver. This role is reinforced by GIS freight corridor mapping, which shows Abbotsford's strategic position along Highway 1 and potential rail alignments into the U.S. Pacific Northwest.

Social Impact

Accessibility and Mobility

Rail connection offers inexpensive, dependable, and effective modes of movement particularly to those groups disadvantaged by dependence on cars. Students at the University of the Fraser Valley, elderly and low-income households in Abbotsford would have access to new employment centers, schools and healthcare services. In these groups, the dependency on cars can be a hindrance because of monetary factors, licensure conditions, or physical factors. A passenger rail station would greatly lower these barriers by providing a lower-cost and all-inclusive option. As Curtis and Scheurer (2016) highlight, ensuring equal access to transport not only improves the quality of life but also lessens social exclusion and allows residents to enjoy a more active presence in the regional economy and society.

Moreover, being accessible by rail minimizes the use of paratransit services which are usually costly and challenging to scale. Through the establishment of universal access, the station assists in the promotion of social participation and enhances connectivity to vital services like hospitals, universities and regional government offices.

Inclusivity and Equity

Although the majority of the residents of Abbotsford own cars, not all of them could afford them as driving is becoming progressively unaffordable to low-income households due to rising prices of gas, insurance, and maintenance. A railroad station may serve as a social equalizer and a

low-cost substitute to automobile travel. This is specifically essential in the suburbs where people lack access to transportation which makes their lives to be increasingly poor. The accessibility of the railways in Abbotsford could be used to ensure that more people of all socioeconomic backgrounds have more chances, which could contribute to making the society just and more resilient. Most likely to benefit are the following categories of people:

- Youth and students- who bear high costs of licensing and car ownership.
- The elderly residents who can possibly are unable to drive because of health problems or mobility.
- New immigrants who, in most cases, do not have access to vehicles but require cheap travel modes to work.
- Low-income households whose reliance is on rail because it is a more predictable, cost-effective and alternative to the rising fuel prices.

Community Identity and Civic Pride

A city's character is shaped by its infrastructure, and a passenger train station has the potential to change Abbotsford's perception as an agricultural town. A well-designed, visually appealing station may have communal property status in addition to its utilitarian worth since it signifies progress, development, sustainability, and ties to the local, global economy. For example, the improvement of Calgary's logistic infrastructure has boosted economic growth and public engagement (Calgary, 2018). Additionally, transforming Abbotsford into a regional center rather than just a commuter suburb will boost local pride and draw outside attention, enhancing the city's reputation and sense of community.

This kind of infrastructure may also serve as a symbolic entryway into the Fraser Valley, which provides Abbotsford with a unique civic identity. Civic pride would be solidified through public

art, ecological architecture and the incorporation of local cultural motifs into the station design to emphasize the role of Abbotsford as a progressive and connected city.

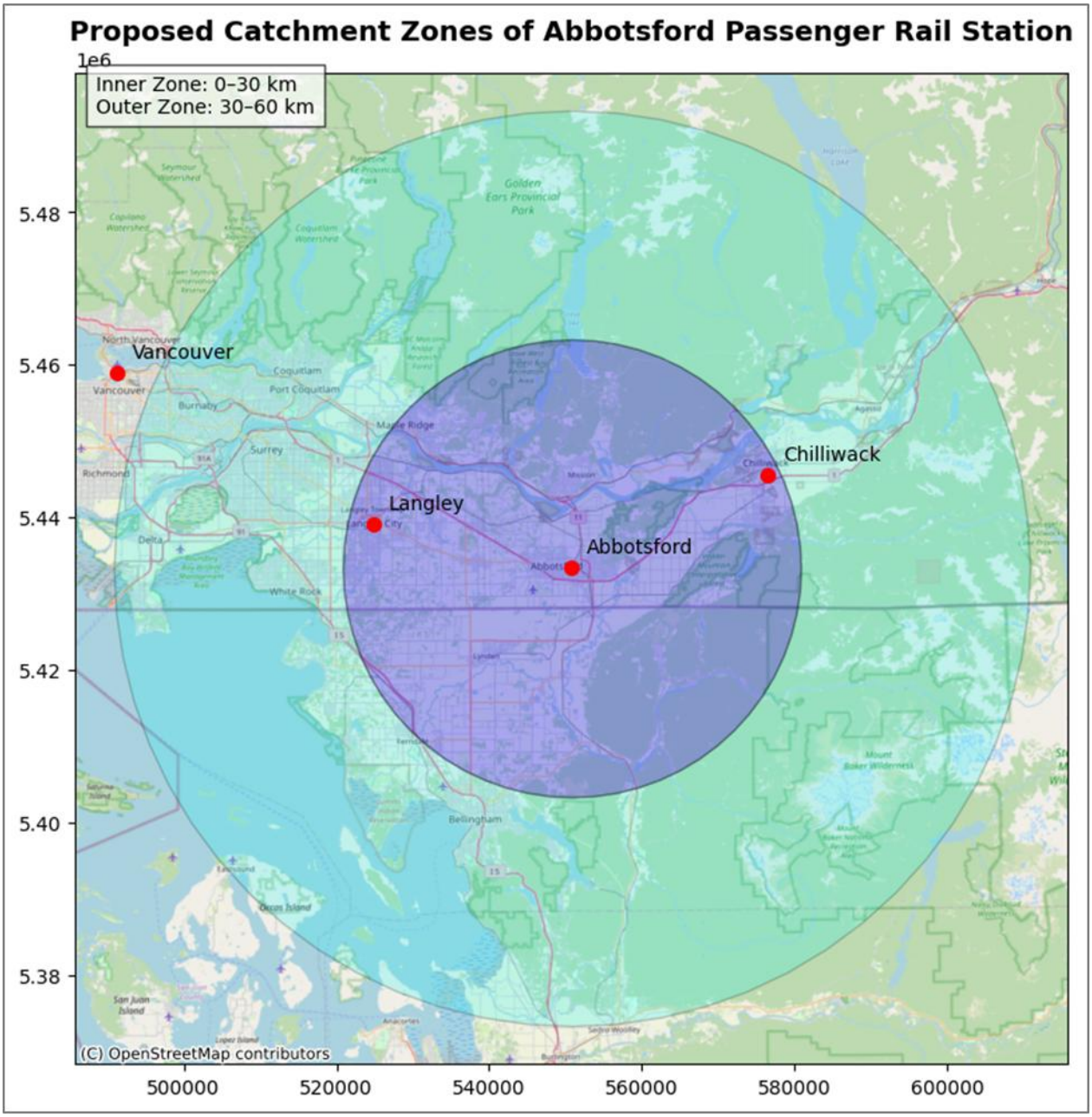
Transit-Oriented Development (TOD).

Construction of a rail station would also be responsive to the Transit-Oriented Development (TOD), which encourages a comprehensive city development through the development of offices, retail stores, and residential development around the transport hub. Rodrigue et al. (2020) argue that TOD makes the cities friendlier to pedestrians, contributes to the establishment of a more inviting environment, and reduces car usage.

In addition to economic growth, TOD has social advantages since it provides neighborhoods characterized by vibrancy that combine affordability of housing and convenient access to services. Families who will have been pushed out of Metro Vancouver because of high cost of living would welcome the opportunity to be settled in Abbotsford, where they would not only have affordable housing but also have easy access to transport to work in Vancouver and other parts of the country.

Figure 2

Proposed Catchment Zones of Abbotsford Passenger Rail Station



Note. The map illustrates estimated 0–30 km and 30–60 km commuter zones around Abbotsford, indicating the area's most likely to benefit from station development. Adapted from City of Abbotsford (2021).

While the secondary catchment (30–60 km) would draw commuters from Chilliwack and Langley, the local catchment (within 30 km) would benefit Abbotsford residents and nearby Fraser Valley municipalities, as Figure 2 illustrates. This highlights Abbotsford's potential as a regional center by striking a balance between increased accessibility throughout the valley and the pressures on housing affordability in Metro Vancouver.

Moreover, rail may enhance the sense of community, adding value to commuting stress, promoting social contacts, and facilitating equitable job and education opportunities. Social effects are thus not limited to mobility, which establishes resilience and civic identity.

Environmental Impact

Reduced Greenhouse Gas Emissions

Passenger rail would be a much more sustainable alternative to airplanes and vehicles. Transport Canada (2021) believes that a personal vehicle emits at least 80 percent of the quantity of greenhouse gas emissions per passenger-kilometre of a train. This is already a change of modalities since even a shift in the population that currently travels by car between Abbott and Vancouver to rail transport of no less than 10 percent will preclude the emission of thousands of tons of CO2 annually. This would play a major role in mitigating carbon footprint in the region and the ease of transportation, as far as the wider agenda of climate change is concerned.

A transition to passenger train could have a changing behaviour on top of the apparent environmental advantage. The prejudice of society towards sustainable transportation can also appear as soon as commuters become aware of the lower costs, the decreased stress on the way, and the environmental benefits of rail. This might eventually enhance the benefits of emissions reductions with the encouragement of more people living close to the stations, and the fact that it is safer to use rail cars than a personal vehicle.

Also, not only is carbon dioxide reduced by rail transport. Trains also produce less nitrogen oxides and particulates than cars and planes, which enhances the air quality of the regions and serves as a benefit to the population. Such health co-benefits like lower respiratory diseases, further add value to the proposition of a rail station at Abbotsford.

Congestion Relief

Highway 1 is the primary road connecting Abbotsford and Vancouver and is regularly one of the busiest roads in British Columbia. In summary of the negative economic and social impacts of this congestion, according to Metro Vancouver (2017), it can be summed up in the following statements: low productivity, increased fuel consumption, and increased infrastructural maintenance costs. The new station would alleviate traffic congestion by getting rid of some commuters on highways due to the new station, and it would save time on the highways, as well as no future financial investment on Highway 1 for upgrades and maintenance.

A passenger rail station in Abbotsford would assist in reducing some of these strains. The station would decrease the number of vehicles on the highway in the process of capturing a percentage of the daily commuters who will otherwise use Highway 1, thus decreasing the amount of time spent on the highway and reducing the traffic congestion on the highway network. This traffic cut would not only help the person who opts to use the rail but also those who continue to rely on the road because there is less congestion, and this will enhance the overall efficiency of the system.

Moreover, reduced traffic volumes would increase the life cycle of road infrastructure, through minimizing the wear and tear, as well as saving millions in highway maintenance over the years. Such savings would subsequently be reinvested into other transport projects in the region, a multiplier of public investment. In addition to the positive effects on the economy, commuters

would also enjoy reduced stress levels and a better life as the travel time will be less irritating and predictable.

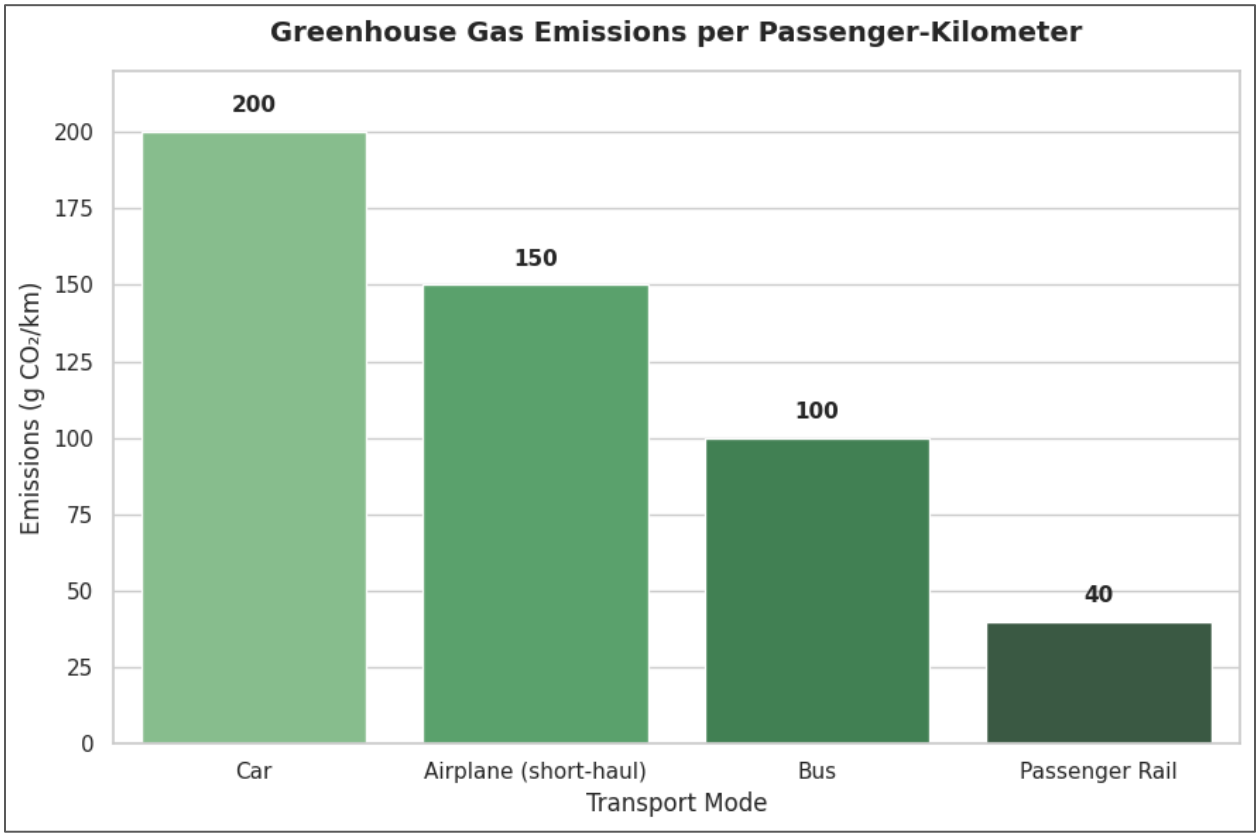
Climate Policy Alignment

Climate goals on the national and provincial levels require significant change to sustainable transportation. The only means of achieving these pledges is through increased use of public transportation, as postulated by Litman (2021). The opening of a passenger rail station in Abbotsford would achieve these objectives and send the message that the city is a prototype of environmentally conscious urban planning and development.

In order to visualize these discrepancies, approximate greenhouse gas emissions per passenger-kilometre of the most popular types of transportation are presented in Chart 2. The comparison reveals the extent of difference existing between cars and airplanes, which emit many emissions and the option that is less polluting, such as buses and passenger trains.

Chart 2:

Comparative GHG Emissions



Adapted from Transport Canada (2021).

The findings validate that passenger rail is the greenest alternative choice. Not only does it emit much less carbon than other modes, but it also provides a long-term solution by which cities like Abbotsford can reduce their car dependence. Abbotsford can do much to limit the effect of air pollution in the neighbourhood, limit the effect of noise pollution and show genuine interest in low-carbon transport in the future by focusing on rail.

According to comparative standards, the emission of passenger rail is about 41 g CO 2/passenger-km, which is in contrast to 171 g/car and 255 g/airplane (WSDOT, 2019). Such measures imply the significant environmental benefits of rail over the modes of competition.

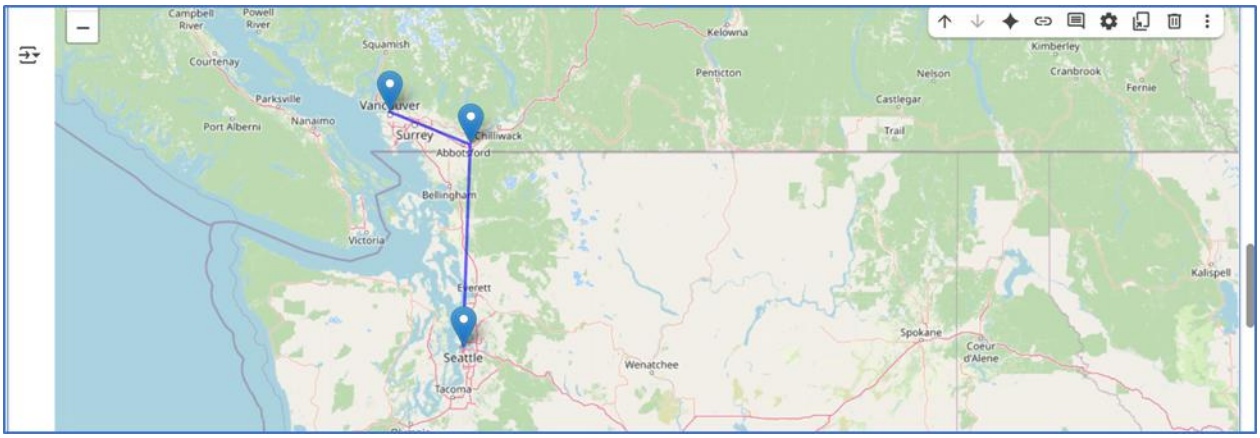
Regional Integration

Cascadia Corridor

The Cascadia Corridor is now one of the most active megaregions in North America; the northeast terminus of which is Vancouver, the southwestern terminus is Portland and Seattle. Such a transnational area is a home to about 10 million people, and it's increasingly becoming recognized as a key economic, cultural and environmental zone. As a report issued by the Washington State Department of Transportation (2019) implies, the implementation of the high-speed rail may result in a new economy that will be worth billions of dollars due to the travelling and enhancing of economic interconnections. Abbotsford is playing a massive role in enhancing Canadian and cross-border integration along the corridor between the two major cities between which it is situated, namely Vancouver and Seattle.

Figure 3

Abbotsford's Position in the Cascadia Corridor



Note. The map illustrates Abbotsford's location along the Cascadia Corridor between Vancouver and Seattle, underscoring its potential as a midpoint hub. Adapted from OpenStreetMap (2025).

Because of its position, Abbotsford may act as a bridge into U.S. markets as well as a link between Canadian communities, as seen in Figure 3. Its geographic advantage supports its

ability to improve the integration of the Cascadia Corridor and directly help the Fraser Valley region socioeconomically.

Cross-Border Travel

Improved access to Amtrak Cascades service would facilitate the transport of residents and visitors to Abbotsford to travel between the United States and Canada. As a convenient transit station on the Seattle-Vancouver route, Abbotsford has the potential to tap into the large cross-border tourist market. It might encourage passengers who would otherwise avoid the Fraser Valley to spend time and money in the city, and increase business in local hotels, restaurants, and attractions. This stopover potential will turn Abbotsford into a destination itself rather than a pass-through community.

This potential of stopover turns Abbotsford into a destination beyond being a pass-through city that enhances its identity and generates a sustainable demand for tourism-related services.

Table 5

Projected Cross-Border Tourism Benefits of an Abbotsford Passenger Rail Station

Indicator	**Current Estimate (2022)**	**Potential with Rail Expansion**	**Source**
Annual Visitors	1.2 million	1.6–1.8 million (+30–40%)	Tourism Abbotsford (2022)
Direct Tourism Spending	$160 million	$210–$230 million (+35%)	Tourism Abbotsford (2022)
Average Hotel Occupancy Rate	62%	75%	Tourism Abbotsford (2022)

Share of Cross-Border Visitors (%)	15%	25%	Cascadia Innovation Corridor (2020)

Note. Estimates assume a moderate increase in cross-border passenger rail traffic following the establishment of an Abbotsford station.

Table 5 provides the numbers that help to reveal the magnitude of possible benefits. This 30-40 percent growth in the number of people visiting per year would not only accelerate spending of direct tourism, some $50-70 million, but also trigger secondary growth in the local workforce, local cultural events, and service sectors. Increased occupancy rates in hotels and the percentage of cross-border tourists indicate that Abbotsford may become a popular place to have a stopover, and therefore, the city may not have to depend on car-driven tourism as much, but rather become a part of the global stream of tourists.

Labour Market Linkages

The City of Abbotsford (2021) attaches great importance to the transportation issue, considering the accessibility to broader labour markets. A rail station would give Abbotsford residents affordable commuting opportunities and employment opportunities in Vancouver, and this would reduce the burden imposed by the high cost of housing in Metro Vancouver. Reverse commuting would also allow the businesses in Abbotsford to tap the local talent pool in the short run. This two-way flow in labour circulation between urban and suburban regions would, however, be the factor which would ensure that the affordability of the housing and work opportunities, the lack of difference between city and suburb dwellers and the low vulnerability of the region to economic shocks would all become a reality.

High-speed rail through Cascadia is projected in the future outlook planning of 20402045. Given the priority of hubs, Abbotsford would have guaranteed a central place in this megaregional network. It will be integrated with electrified rail and seamless cross-border ticketing, which will make it long-term sustainable and competitive.

Porter's Five Forces Analysis

Using Porter's Five Forces framework is a systemic manner of assessing the competitive situation of a proposed passenger rail station in Abbotsford. Each force identifies the opportunities and challenges that are likely to define the success of the project. Framing Abbotsford's opportunities within this competitive model also illustrates how public policy, such as subsidies, land grants, and international agreements, can reduce risks and enhance the station's viability.

Threat of New Entrants – Moderate

The high capital infrastructure, rolling stock, and regulatory requirements of entering the passenger rail sector generally preclude new entrants. Nonetheless, the Washington State Department of Transportation (2019) stated that with government investment and cross-border collaboration in the Cascadia Corridor, barriers to entry might decrease, and public-private partnerships might become possible. Therefore, in as much as barriers to entry may be high, there may be an enabling policy environment that may stimulate new entrants.

Bargaining Power of Suppliers – High

The rail industry has suppliers in the form of infrastructure owners (CN and CP) and operators (VIA Rail and Amtrak). These organizations manage such vital resources as track access, signaling systems, and rolling stock. This is because they are concentrated in terms of market power, and they are well able to have a great effect on pricing, scheduling, and terms of

operation. Consequently, the proposed station in Abbotsford would be highly vulnerable to negotiations negated by suppliers, as this would restrict flexibility and escalate expenses.

Bargaining Power of Buyers – Moderate

The buyers here are represented by travelers. Although they can use cars, buses, or low-cost airlines, increasing congestion on Highway 1 is making rail more appealing. Litman (2021) contends that with increasing costs and delays in travel, they drive demand to more reliable modes. The ability to select between the modes would therefore also give passengers a degree of leverage, but rail could maintain the balance by providing faster, greener and more comfortable journeys.

Threat of Substitutes – High

Cars are the most common means of transport in Abbotsford, but buses and airlines also offer alternative forms of intercity transport. Considering the flexibility and perceived convenience of personal vehicles, rail will have to compete with people's natural tendencies, behaviours and habits. There is also competition with longer-range trips offered by low-cost airlines. This means that the threat of substitutes is high but can be reduced by rail through focusing on its sustainability, affordability and congestion avoidance.

Industry Rivalry – Moderate

There is a relatively high competition level in intercity travel, with buses, cars and airlines competing to attract passengers. Rail, however, can distinguish itself by offering such special benefits as reduced ecological footprint, comfort of travelers, and the possibility of being a part of the Cascadia Corridor (Rodrigue, Comtois, and Slack, 2020). Competition would thus be moderate: not so large as to necessitate strategic positioning, but by no means insurmountable in an industry where rail has a unique value proposition.

Challenges and Considerations

Although the proposed Abbotsford passenger rail station is characterized by major socio-economic advantages, it requires surmounting a series of multifaceted challenges to be a successful project. These issues are financial, social, operational and political in nature and must be cleared in order to be viable in the long term. To address these challenges, phased implementation could be adopted. Early-stage commuter services could begin on existing tracks, while long-term high-speed integration is pursued with federal and U.S. partners.

1. Funding and Investment

Passenger rail infrastructure is capital-intensive to build, equip and maintain. CN (2023) also highlights that one of the primary categories of rail projects in Canada has been founded on public-private partnerships (PPP) to share costs and risks. At Abbotsford, intergovernmental collaboration between the federal, provincial and municipal governments will be essential, and lure the private investor. Without central sources of funding, ad hoc development/muted development might collapse the station.

2. Community Concerns

The success of major infrastructure projects necessitates acceptance of the same by the populace. City of Abbotsford (2021) notes that residents may submit complaints about any land use pressures, noise pollution, and potential displacement of homes and businesses. The planning will need to include the community and engage them in the processes of community involvement, communication and inclusion because this will build trust and ensure the local residents feel that they can see the actual benefits rather than the harms.

3. System Integration

Rail systems should serve within the larger transport system. Metro Vancouver (2017) emphasizes the problems with aligning new services with existing freight operations on CN and CP tracks and passenger services VIA Rail and Amtrak. This will necessitate proper planning, infrastructural upgrades and the signing of working agreements to avoid disputes and facilitate easy integration. In the absence of these coordinations, reliability and efficiency may not be achieved.

4. Cross-Border Issues

Because Abbotsford is located close to the United States border, cross-border travel can also be identified as one of the most critical factors that determine the attractiveness of the project. But it will not be easy to calm the traditional practices, immigration and security measures with the U.S authorities. Cascadia Innovation Corridor (2020) points to border delays and unsuitable regulations as the negative effects of high-speed rail that can be eliminated. These solutions will involve bilateral accord, establishment of more pre-clearance events and the investment of border facilities that will assist in streamlining passenger flows.

Comparative Insights

The opportunities of Abbotsford should be perceived within the context of other Canadian transport and logistics centers that are already developed. Vancouver, Calgary, and Edmonton demonstrate how economic, social, and environmental impacts of rail-based infrastructure may be created. The comparison of Abbotsford with these hubs points out the differences and opportunities.

Vancouver

The western gateway of Canada is Vancouver, and this is the center of the Pacific Central Station that links to both VIA Rail and Amtrak. It is a national and cross-border node which has contributed to the development of a robust business community, enhanced inclusiveness by merging urban transit, and lowered car reliance. Nonetheless, Vancouver is grappling with issues of excessive prices, traffic jams, and the lack of space for expansion. Abbotsford does not have to be a rival to Vancouver, but rather complementary enough to reduce the strain on the infrastructure, provide an inexpensive substitute for commuters, and increase cross-border connectivity to the Fraser Valley residents.

Calgary

Calgary provides an example of how rail-linked logistics can be a source of property development and diversification of the economy. The CN Logistics Park has been able to attract distribution centers and trade across Prairie. The economic and social benefits of these hubs have been realized in Transit-Oriented Development communities, and physical emissions of trucking have been reduced. The lesson that Abbotsford can learn is that it can incorporate freight planning in its passenger rail project and is more likely to attract agri-food processors, logistics companies, and warehouses that have direct access to rail.

Edmonton

Edmonton, which has Walker Yard, is a trade gateway to the north, merging freight and passenger rail services. Its advantage is industrial investment and mobility in the city, and lessening congestion. The lesson to Abbotsford is to make sure that there is no conflict of coordination between CN, CP, and passenger operators, hence providing reliability and efficiency of goods and people.

Abbotsford

Although still a proposed hub, Abbotsford has a niche position. It is located in the Cascadia Corridor between Vancouver and Seattle and can serve as a mid-location point where the suburban rural population can connect to the metropolitan and global markets. Abbotsford can focus on inclusiveness, affordability, and sustainability, unlike bigger hubs. The model of Abbotsford is balanced in terms of economic, environmental, and social results because of the projected CO_2 reduction and equal access to all students, seniors, and low-income households.

Table 6

Comparative Socio-Economic Insights of Canadian Rail Hubs

City	**Hub Type**	**Economic Impact**	**Social Impact**	**Environmental Impact**	**Integration Role**
Vancouver	Pacific Central	High business growth	Strong inclusivity	Reduced car use	National & cross-border hub
Calgary	CN Logistics Park	Property value growth	TOD communities	Truck emissions cut	Prairie distribution hub
Edmonton	Walker Yard	Industrial investment	Urban mobility	Reduced congestion	Northern trade gateway
Abbotsford	Proposed Station	Tourism & trade boost	Affordable access	CO_2 reduction	Cascadia corridor midpoint

Note. Adapted from Calgary (2018); CN (2023); Metro Vancouver (2017).

In spite of Vancouver leading the cross-border flows, Calgary leads in logistics, and Edmonton leads the northern trade, the comparative advantage of Abbotsford is its ability to combine the advantages on a smaller but effective level. It would not replace existing hubs but rather fill gaps - making the Fraser Valley agriculture more accessible to the U.S. markets, relieving Metro Vancouver of commuter capacity, and increasing tourism stopovers along the Cascadia Corridor.

Figure 3

Comparative Performance of Canadian Rail Hubs

City	**Hub Type**	**Economic Impact**	**Social Impact**	**Environmental Impact**	**Integration Role**
Vancouver	Pacific Central	High business growth	Strong inclusivity	Reduced car use	National & cross-border hub
Calgary	CN Logistics Park	Property value growth	TOD communities	Truck emissions cut	Prairie distribution hub
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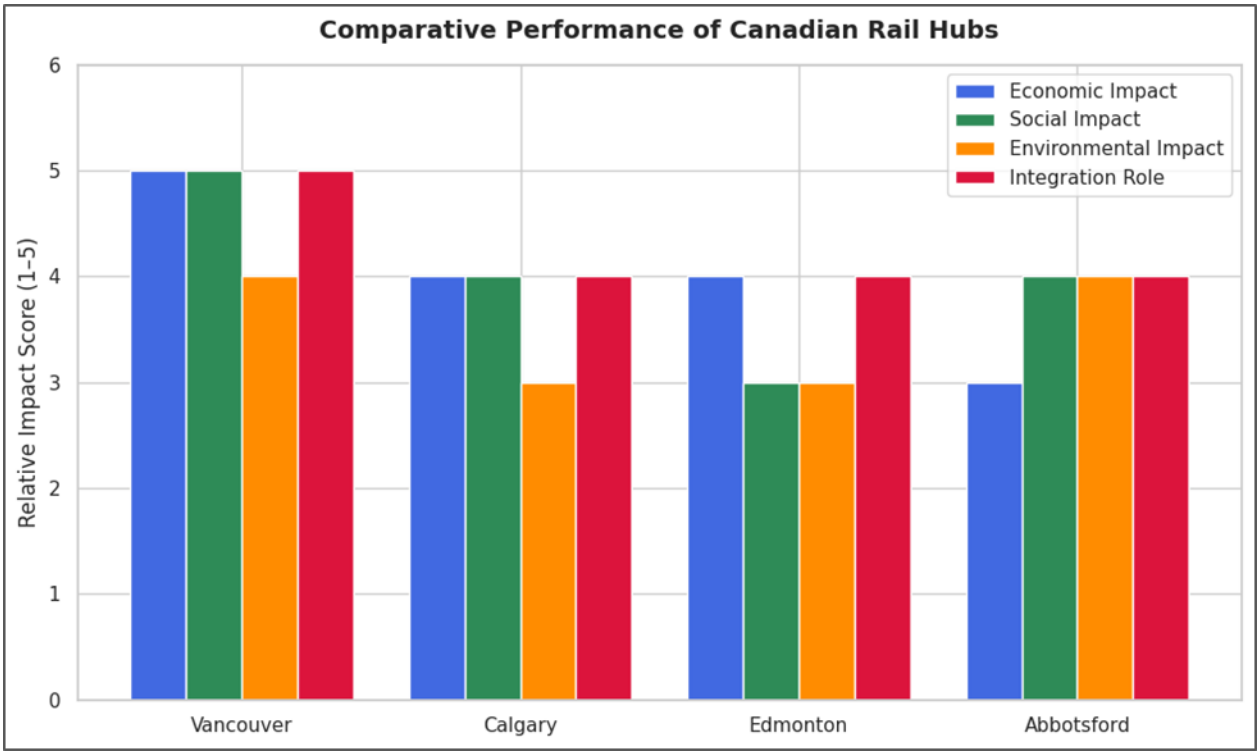
Figure 3

Comparative Performance of Canadian Rail Hubs



Note. Adapted from Calgary (2018); CN (2023); Metro Vancouver (2017).

These dynamics can be seen in Chart 3 (see Figure 3 above). Vancouver is doing exceptionally well in all aspects as it has already been established whereas Calgary and Edmonton are doing well in economic and integration dimensions. Although it is at its early phases, Abbotsford offers great potential in terms of environmental sustainability, social accessibility, and integration with the region, which larger hubs are traditionally restricted in.

After all, the comparative location of Abbotsford does not involve competition, but connection: connecting the city to its suburban and rural hinterlands, making the Fraser Valley part of the larger Cascadia megaregion.

Recommendations

1. Position Abbotsford as a Cascadia Midpoint Hub

Based on its geographic location between Vancouver and Seattle (Figure 3), Abbotsford should actively brand itself as a key connector in the Cascadia Corridor. The labour and trade opportunities outlined in Table 1 (2,000 total jobs, including indirect impacts) and Table 4 (improved agricultural and logistics connectivity) support this role. By positioning Abbotsford as a midpoint hub, the city can diversify beyond agriculture and establish itself as a competitive logistics and commuter center. This recommendation is grounded in Cascadia Innovation Corridor (2020), which emphasizes the multi-billion-dollar regional potential of high-speed rail.

2. Apply GIS Tools to Planning and Catchment Analysis

As demonstrated in Figure 2, catchment areas within 30–60 km of Abbotsford indicate strong commuter potential. To maximize this, planners should integrate GIS spatial analysis into decision-making, identifying high-demand corridors, multimodal integration points, and zoning opportunities. Using GIS-based projections will not only optimize station placement but also guide equitable service provision for low-income groups highlighted in the Social Impact section. Current best practices in transport planning (City of Abbotsford, 2021; Transport Canada, 2021) recommend evidence-driven modelling to ensure long-term ridership and sustainability.

3. Support Transit-Oriented Development (TOD) with Housing Policy

Table 3 shows projected property value growth of up to 20% within 1 km of the station, translating into higher tax revenues and increased affordability pressures. To prevent displacement, Abbotsford should pair TOD zoning with affordable housing incentives. This will ensure that the benefits of TOD walkable communities, vibrant retail, and mixed-use development are widely shared. Cervero (2002) and Litman (2021) emphasize TOD's dual benefits for economic vibrancy and social inclusion, while the City of Abbotsford (2021) underlines the urgency of housing affordability in the Fraser Valley.

4. Align with Canada's Net-Zero Strategy through Sustainable Rail Design

Environmental findings (Chart 2) show passenger rail emits 41g CO_2/passenger-km, compared to 171g for cars and 255g for airplanes (Transport Canada, 2021; WSDOT, 2019). Abbotsford should contribute to Canada's 2050 net-zero targets by electrifying its passenger services and incorporating green station designs such as solar integration and energy-efficient construction. This will amplify the environmental benefits outlined in the Environmental Impact section while also positioning Abbotsford as a leader in sustainable transport policy.

5. Strengthen International Cooperation for Seamless Cross-Border Travel

Table 5 projects a 30–40% increase in annual visitors with expanded cross-border integration. To realize this potential, Abbotsford must negotiate with U.S. border agencies and Amtrak to harmonize customs, security, and ticketing systems. These measures would reduce delays, enhance tourism (CAD 50–70 million in added annual spending), and stimulate local businesses. Cascadia Innovation Corridor (2020) and CN (2023) stress that bilateral agreements and pre-clearance systems are key enablers of successful cross-border passenger rail.

Conclusion

The Fraser Valley and the Cascadia Corridor could undergo significant change as a result of the proposed Abbotsford Passenger Rail Station. In terms of the economy, it would increase property values, diversify business options, and provide hundreds of employments. In terms of society, it would increase accessibility, advance equity, and recast Abbotsford as a hub for the region. In terms of the environment, it would lessen traffic on the highways and greenhouse gas emissions, thereby supporting Canada's climate pledges. On a regional level, it would improve cross-border integration and bring Abbotsford closer to the job market in Vancouver. With the application of GIS analysis, comparative benchmarks, and future-oriented planning, Abbotsford can transform from a commuter suburb into a resilient, sustainable hub in the Cascadia Corridor. Actionable recommendations further ensure that benefits extend beyond economics, shaping social equity, environmental sustainability, and cross-border collaboration.

Although there are still issues, mostly with finance, integration, and political coordination, data from cities like Vancouver, Calgary, and Edmonton indicate that the long-term advantages outweigh the drawbacks. Abbotsford, a suburban agricultural city, might become a sustainable, economically vibrant connecting city at the center of the Cascadia Corridor by investing in a passenger train station.

References

Calgary. (2018). *Calgary goods movement strategy.* City of Calgary, Transportation Planning. https://www.calgary.ca

Cascadia Innovation Corridor. (2020). *High-speed rail in the Cascadia megaregion: Final study report.* Washington State Department of Transportation. https://wsdot.wa.gov

Cervero, R. (2002). Built environments and mode choice: Toward a normative framework. *Transportation Research Part D: Transport and Environment, 7*(4), 265–284. https://doi.org/10.1016/S1361-9209(02)00012-3

City of Abbotsford. (2021). *Official community plan: Transportation strategy update.* City of Abbotsford. https://www.abbotsford.ca

CN. (2023). *CN Calgary Logistics Park.* Canadian National Railway. https://www.cn.ca

Curtis, C., & Scheurer, J. (2016). *Planning for public transport accessibility: An international sourcebook.* Routledge.

Fraser Valley Real Estate Board. (2023). *Housing market statistics: Fraser Valley region*. Fraser Valley Real Estate Board. https://www.fvreb.bc.ca/stats/

Litman, T. (2021). *Evaluating public transit benefits and costs (11th ed.).* Victoria Transport Policy Institute. https://www.vtpi.org/tranben.pdf

Metro Vancouver. (2017). *Regional goods movement strategy: Moving the economy.* TransLink. https://www.translink.ca

Rodrigue, J. P., Comtois, C., & Slack, B. (2020). *The geography of transport systems* (5th ed.). Routledge.

Statistics Canada. (2022). *Population and demographic trends in British Columbia*. Government of Canada. https://www12.statcan.gc.ca/census-recensement/index-eng.cfm

Tourism Abbotsford. (2022). *Annual tourism statistics report*. Tourism Abbotsford. https://tourismabbotsford.ca/wp-content/uploads/2022/10/Annual-Report-Highlights-Q2-FINAL-1.1.pdf

Transport Canada. (2021). *Transportation in Canada 2021: Statistical report.* Government of Canada. https://tc.canada.ca

Washington State Department of Transportation. (2019). *Ultra high-speed ground transportation business case analysis.* https://wsdot.wa.gov

Appendices

Appendix A: Demographic Profile of Abbotsford

Indicator	Value (2021)	Source
Total Population	153,000	City of Abbotsford (2021)
Median Age	39.3 years	Statistics Canada (2021)
Immigrant Population Share	27%	City of Abbotsford (2021)
University Student Population	~15,000 (UFV & colleges)	UFV (2020)

Note: These demographics highlight the presence of students, young families, and immigrants, groups who are often more dependent on public transport.

Appendix B: Housing Market Pressure in the Fraser Valley

City/Region	Average Home Price (2023)	Annual Growth (%)	Source
Vancouver	$1.2 million	+8%	Metro Vancouver (2023)
Abbotsford	$820,000	+6%	Fraser Valley Board (2023)
Chilliwack	$720,000	+5%	Fraser Valley Board (2023)

Note: Rising housing costs in Metro Vancouver make Abbotsford an attractive commuter hub, reinforcing the case for rail investment.

Appendix C: Tourism Statistics for Abbotsford

Indicator	Value	Source
Annual Visitors	1.2 million	Tourism Abbotsford (2022)
Direct Tourism Spending	$160 million	Tourism Abbotsford (2022)